



Docket No.: 023949.0104PTUS  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
Chaoqiang Liu et al.

Application No.: 10/578581

Confirmation No.:

Filed: May 5, 2006

Art Unit: N/A

For: DOCUMENT IMAGE  
ENCODING/DECODING

Examiner: Not Yet Assigned

**INFORMATION DISCLOSURE STATEMENT (IDS)**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08/AB. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed within three months of the U.S. filing date (37 CFR 1.97(b)(1)).

Applicant has not submitted copies of each cited U.S. patent and U.S. patent application as required by 37 CFR 1.98(a)(2)(i), amended October 2004, as the U.S. Patent and Trademark Office has waived this requirement for all U.S. patent applications. Applicant submits herewith copies of foreign and non-patents in accordance with 37 CFR 1.98(a)(2).

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information

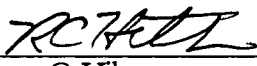
Disclosure statement shall not be construed to be an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

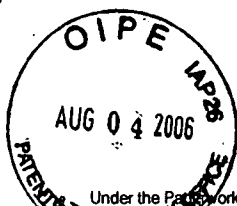
It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 50-2816, under Order No. 023949.0104PTUS. A duplicate copy of this paper is enclosed.

Dated: August 1, 2006

Respectfully submitted,

By   
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PTO/SB/08a/b (07-05)

Approved for use through 07/31/2006. OMB 0651-0031

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		<b>Complete if Known</b>			
		Application Number	10/578581		
		Filing Date	May 5, 2006		
		First Named Inventor	Chaoqiang Liu		
		Art Unit	N/A		
		Examiner Name	Not Yet Assigned		
Sheet	1	of	1	Attorney Docket Number	023949.0104PTUS

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
/JC/	AA*	US-5,778,092-A	07-07-1998	MacLeod et al.	
	AB*	US-5,778,095-A	07-07-1998	Davies	
↓	AC*	US-6,324,305-A1	11-27-2001	Holladay et al.	
	AD*	US-6,163,625-A	12-19-2000	Ng et al.	
/JC/	AE*	US-5,392,362-A	02-21-1995	Kimura et al.	

FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
/JC/	BA	EP-EP 0 713 329	05-22-1996	XEROX CORPORATION	

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. \* CITE NO.: Those application(s) which are marked with an asterisk (\*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filed after June 30, 2003 or is available in the IFW. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
/JC/	CA	J. Li et al, Context-Based Multiscale Classification of Document Images Using Wavelet Coefficient Distributions IEEE Transactions on Image Processing, Spetember 2000, Vol. 9, No. 9 <a href="http://www.stanford.edu/group/compression/publications/jiali/docseg.pdf">http://www.stanford.edu/group/compression/publications/jiali/docseg.pdf</a>	
/JC/	CB	R. de Queiroz et al, <i>Mixed Raster Content (MRC) Model for Compound Image Compression</i> Proc. IS&T/SPIE Symposium on Electronic Imaging, Visual Communications and Image Processing, 1999, pp. 1106-17; <a href="http://queiroz.lab.unb.br/papers/ei99mrc.pdf">http://queiroz.lab.unb.br/papers/ei99mrc.pdf</a>	
/JC/	CC	WDIC - Wavelet-Based Document Image Compression, as archived on 22 February 2002 <a href="http://web.archive.org/web/20020422002439/www.cwaip.nus.edu.sg/demo/wdic.htm">http://web.archive.org/web/20020422002439/www.cwaip.nus.edu.sg/demo/wdic.htm</a>	
/JC/	CD	Gary E. Kopec et al.; <i>Document-Specific Character Template Estimation</i> ; Proc. SPIE Document Recognition III, 1996, pp. 14-26; <a href="http://www2.parc.com/istl/members/kopec/spie-96-cte.pdf">http://www2.parc.com/istl/members/kopec/spie-96-cte.pdf</a> .	
/JC/	CE	Amir Said et al.; <i>A New Fast and Efficient Image Codec Based on Set Partitioning in Hierarchical Trees</i> ; IEEE Trans on Circuits and Systems for Video Technology; Vol. 6, No. 3; June 1996; pp. 243-250.	
/JC/	CF	Wei Gong et al.; <i>Shape and Image Matching by Use of Morphology</i> ; Proc. 11th Int. Conf. on Pattern Recognition; Vol. 2; The Hague, The Netherlands, 1992; pp. 673-676.	
/JC/	CG	J.M. Shapiro, <i>Embedded Image Coding Using Zerotress of Wavelet Coefficients</i> ; IEEE Trans. On Signal Processing, Vol. 1, No. 12; December 1993; pp. 3445-3426.	
/JC/	CH	International Search Report dated January 10, 2005 from the ISA/AU for PCT/SG2004/000366.	

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Examiner Signature	/Jose Couso/	Date Considered	02/23/2009
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<b>TRANSMITTAL FORM</b>  (to be used for all correspondence after initial filing)		Application Number	10/578581
		Filing Date	May 5, 2006
		First Named Inventor	Chaoqiang Liu
		Art Unit	N/A
		Examiner Name	Not Yet Assigned
Total Number of Pages in This Submission	4	Attorney Docket Number	023949.0104PTUS

ENCLOSURES (Check all that apply)		
<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance Communication to TC
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
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<input type="checkbox"/> Reply to Missing Parts/Incomplete Application	<div>Remarks</div>	
<input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm Name	PATTON BOGGS LLP		
Signature			
Printed name	Robert C. Hilton		
Date	August 1, 2006	Reg. No.	47,649

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the U.S. Postal Service on the date shown below with sufficient postage as First Class Mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.	
Dated: AUGUST 1, 2006	Signature:  (Debbie Hargrove)